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6661/6BH6

SHARP-CUTOFF PENTODE

7-PIN MINIATURE TYPE

For use in mobile communications equipment

GENERAL DATA

Electrical:

Heater, for Unipotential Cathode:

Voltage. 6.3 $\pm$ 20%* ac or dc volts

Current at 6.3 volts 0.15 amp

Direct Interelectrode Capacitances:

	Without External Shield	With External Shield ^o	
Grid No.1 to plate	0.0035 max.	0.0035 max.	$\mu\mu\text{f}$
Grid No.1 to cathode, grid No.3 & internal shield, grid No.2, and heater. . .	5.4	5.4	$\mu\mu\text{f}$
Plate to cathode, grid No.3 & internal shield, grid No. 2, and heater.	4.4	4.4	$\mu\mu\text{f}$

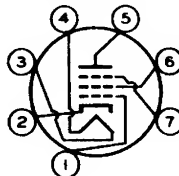
Characteristics, Class A₁ Amplifier:

Heater Voltage.	6.3	volts
Plate Supply Voltage.	250	volts
Grid No.3	Connected to cathode at socket	
Grid-No.2 Supply Voltage.	150	volts
Cathode Resistor.	100	ohms
Plate Resistance (Approx.).	1.4	megohms
Transconductance.	4600	μmhos
Plate Current	7.4	ma
Grid-No.2 Current	2.6	ma
Grid-No.1 Voltage (Approx.) for plate $\mu\text{a} = 10$	-7.7	volts

Mechanical:

Operating Position.	Any
Maximum Overall Length.	2-1/8"
Maximum Seated Length	1-7/8"
Length, Base Seat to Bulb Top (Excluding tip)	1-1/2" $\pm$ 3/32"
Diameter.	0.650" to 0.750"
Dimensional Outline	See General Section
Bulb.	T5-1/2
Base.	Small-Button Miniature 7-Pin (JEDEC No. E7-1)
Basing Designation for BOTTOM VIEW.	7CM

Pin 1-Grid No.1
Pin 2-Cathode
Pin 3-Heater
Pin 4-Heater
Pin 5-Plate



Pin 6-Grid No.2
Pin 7-Grid No.3,
Internal
Shield

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SHARP-CUTOFF PENTODE

AMPLIFIER — Class A₁

Maximum Ratings, Design-Maximum Values:

PLATE VOLTAGE. 330 max. volts

GRID-No. 2 (SCREEN-GRID) SUPPLY

VOLTAGE. 330 max. volts

GRID-No. 2 VOLTAGE. *See Grid-No. 2 Input Rating Chart
at front of Receiving Tube Section*

GRID-No. 1 (CONTROL-GRID)

VOLTAGE:

Negative-bias value. 55 max. volts

Positive-bias value. 0 max. volts

GRID-No. 2 INPUT:

For grid-No. 2 voltages

up to 165 volts 0.55 max. watt

For grid-No. 2 voltages

between 165 and 330

volts. *See Grid-No. 2 Input Rating Chart
at front of Receiving Tube Section*

PLATE DISSIPATION. 3.3 max. watts

PEAK HEATER-CATHODE VOLTAGE:

Heater negative with respect to cathode. . 100 max. volts

Heater positive with respect to cathode. . 100 max. volts

* When the heater is operated from storage-battery-with-charger supply or similar supplies, the normal battery-voltage fluctuation may be as much as 35 per cent or more. Although such variation in heater voltage is permissible for short periods, reliability can be increased with improved supply-voltage regulation.

^o With external shield JEDEC No. 316 connected to cathode.

SPECIAL RATINGS & PERFORMANCE DATA

Heater-Cycling Life Performance:

This test is performed on a sample lot of tubes from each production run. A minimum of 2000 cycles of intermittent operation is applied under the following conditions: heater volts = 7.5 cycled one minute on and one minute off, heater 135 volts positive with respect to cathode, and all other elements connected to ground. At the end of this test, tubes are checked for heater-cathode shorts and open circuits.

Transconductance at Reduced Heater Voltage:

Average Value. 3600 μ mos

With heater volts = 5, plate supply volts = 250, grid No. 3 connected to cathode at socket, grid-No. 2 supply volts = 150, and cathode resistor (ohms) bypassed = 100.